



## PATENT ABSTRACTS OF JAPAN

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(21) Application number: **04153972**(22) Date of filing: **15.06.92**(71) Applicant: **MATSUSHITA ELECTRIC WORKS LTD**(72) Inventor: **YAMAMOTO KOJI**(54) **OPTICAL FIBER DEVICE FOR ILLUMINATION**

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(57) Abstract:

**PURPOSE:** To eliminate possibility continuing inspection in such a state that a prism is omitted.

**CONSTITUTION:** An optical fiber 1 is formed by converging an illuminating optical fiber 1a and a detecting optical fiber 1b. A prism 2 bending an optical axis by about 90° is attached to the leading end of the optical fiber 1. The base part of the illuminating optical fiber 1a is connected to a light source 3 and the base part of the detecting optical fiber 1b is connected to a light detector 4. A reflecting mirror 5 is provided on the light path of the light emitted from the leading end of the optical fiber 1 when no prism 2 is present. When the prism 2 is omitted and the optical axis is not bent by the prism 2, the light passing through the illuminating optical fiber 1a of the optical fiber 1 from the light source 3 is applied to the reflecting mirror 5 from the leading end of the optical fiber 1 to enter the detecting optical fiber 1b of the optical fiber 1 to pass through the detecting optical fiber 1b and detected by the light detector 4 and the omission of the prism 2 can be detected.

